



# THE CONSTRUCTION of Weatherbest THATCH ROOFS







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WEATHERBEST STAINED SHINGLE CO., INC.

NORTH TONAWANDA

NEW YORK

The Construction of  
Thatched Straw Effect Roofs

*with*

**Weatherbest  
STAINED-SHINGLES**



**WEATHERBEST STAINED SHINGLE CO., INC.**

*Manufacturers of WEATHERBEST Stained Shingles*

NORTH TONAWANDA, N. Y.

WESTERN PLANT: MINNESOTA TRANSFER, MINN.



View of Great Hall, Chicago, Illinois, U.S.A.  
 (The Hall is the largest in the world)  
 (The Hall is the largest in the world)

## The Thatched Straw Roofs of Old England



NOTHING contributes more to the charm of an old English landscape than the quaint thatched straw roofs of the cottages and farmhouses. They have an indescribable air of coziness all their own. Like a protecting blanket, the thatch seems to wrap itself around the building, warding off both heat and cold. Sharp corners and angles soften and flow into the gentle curves of a snowdrift.

Possibly the oldest type of thatch is that known as "rope thatch". In its construction, the straw, rushes, or heather was simply heaped on the rafters in a more or less haphazard manner and tied down with ropes of heather. Its life was scarcely more than two years.

In the more substantial thatched roofs the straw was cut to lengths of approximately four feet and tied in bundles. These bundles were known by various names, such as "bottles", "gavels", "yelts" and "bats". Various methods were followed in fastening the bunches of straw to the rafters. Perhaps the most practical was the use of stout iron rods which were interlaced with the rafters. The straw was then laid on and tied down to these iron rods. After laying, the straw was beaten or combed in order to make it smooth, and the overhang at the eaves was trimmed.

During his time the thatcher was probably the least skilled of the building workmen. He had no guild and each thatcher followed his own individual style and fashioned his own tools. Thus the life of a thatched straw roof depended a great deal on the skill of the workman. Usually the first layer or coat of the more substantial roofs lasted for five or six years. It was then time to add another layer of straw which was simply laid on top of the first and fastened to it. This resulted in from ten to twelve years of fairly good service.

While one occasionally sees evidence of fresh activity of the thatcher, like many another picturesque feature of bygone days the old thatched straw roof is rapidly disappearing to make way for something more practical. It was too insecure against storm, too hospitable to vermin. Yet the quaint charm of its softly-rolling curves helped the building to nestle snugly in the shades and valleys of the surrounding landscape and still holds a place in the affections of those who love beauty.





RESIDENCE OF A. G. SHARP, OTTAWA DRIVE, YOUNGSTOWN, OHIO  
ARCHITECTS: M. M. MILEY AND LEO CHOELL  
WEATHERBEST THATCHED STRAW EFFECT ROOF. COLOR: MEDIUM BROWN



## Weatherbest Thatched Straw Effect Roofs

**P**ATTERNERD after the old roofs of straw, WEATHERBEST Thatched Effect Stained Shingle Roofs, with their softening curves and weathered-straw colors, afford the opportunity to once again secure the quaint, homelike atmosphere that characterized those old English cottages and homes. And it is suggested in carrying out this style of architecture that either stucco or stone be used for the sidewalls. Invariably, the roof can be so designed as to provide for long, unbroken lines, using the hip type of formation and allowing for low, overhanging eaves wherever practicable. The "eyebrow" style of construction over dormers helps to eliminate sharp breaks at these points and gives an additional touch of coziness to the building.

In their departure from conventional sharp angles and standard coloring, WEATHERBEST Thatched Effect Roofs also provide a means of giving full consideration to the roof as one of the chief decorative features of the building. This departure from the conventional is made in absolute safety, as a WEATHERBEST Thatched Effect Roof will give perfect service for practically the life of the building. This long life is due to the narrow exposure to which the shingles are laid, the straight (edge or vertical) grain British Columbia shingles used, and to the creosote preservative contained in WEATHERBEST Stain. Because of this preservative and because they are 100% straight grain, WEATHERBEST Thatch Stained Shingles do not crack or curl but lie snugly to the curves of the roof during their many years of service.

Colored in three shades of weathered straw, with an occasional touch of dull red and brownish green, the general color tone of a WEATHERBEST Thatched Effect Roof is a true reproduction of weathered straw. The different colored shingles are properly proportioned and mixed at our factories so that the carpenter can lay them just as they come from the bundle. If desired, WEATHERBEST Thatch Stained Shingles can be furnished in colors other than weathered straw. We always appreciate the opportunity to work out special color schemes and submit samples for approval.

### *Durability of Color*

Durability of color has for many years been one of the outstanding qualities of WEATHERBEST Stained Shingles. WEATHERBEST Stain consists





RESIDENCE OF CHARLES KOHLER, HAMILTON, OHIO  
ARCHITECT AND BUILDER: EMIL GANTZ  
WEATHERBEST THATCHED STRAW EFFECT ROOF. COLOR: WEATHERBEST WEATHERED STRAW

of the strongest white-pigmented olefinic, just formed all as flexible but light grade material. These ingredients are rolled by wet roll and dry rollers to the correct proportions to insure either that the roll will split in two half, down the middle.

Weatherboard Thatched Straw Effort Roofs are finished ready for application. They come from the grain, finished to a 10" width, or two-thirds inch wide, for the finished top and bottom end, leaving of the ridge, half with the grain to a 10" width for the corner, or roll, at the same, just against the grain, consistent to a 10" width for the corner at the same half finished surface, at the ridge, and for the 10" width of the roll. All Weatherboard Thatched Straw Effort Roofs are from the double line, made at same time the finish was in the special Weatherboard Thatched Pattern, so that when laid at their own rate the double line was, every square is covered in the same finish effect roof.

The Weatherboard Thatched Straw Effort Roof continues uninterrupted with long life and provides a distinctive type of covering for a house. The beauty of solid and insulating these allows the roof to finally look like a surrounding landscape and, like the old English thatched straw roof, makes the building an extension of the area's landscape.

### Special Service on Thatched Straw Effort Roofs

Our Service Department at the National Office, North Tarrytown, N. Y. is ready to offer suggestions and help in the design of Weatherboard Thatched Straw Effort Roofs. When a special color pattern is desired, we prepare graphs to illustrate from photos to show the color correctly. Please note, to us will be given some possibly and completely finished of the material of Weatherboard Thatched Straw Effort Roofs. In such cases, however, we cannot guarantee guaranteed strength and usually we are best to control from the fabric applying the design.



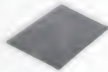
10" wide top and bottom



10" wide top and bottom



10" wide top and bottom



10" wide top and bottom





RESIDENCE OF ROBERT O. SCHMIDT, APPLETON, WIS.  
ARCHITECT: HERMAN WILDHAGEN  
WEATHERBEST THATCHED STRAW EFFECT ROOF. COLOR: WEATHERBEST WEATHERED STRAW  
SIDEWALLS: 24" WEATHERBEST WEATHERED WHITE STAINED SHINGLES



RESIDENCE OF MRS. HENRY VOLK, WEST ENGLEWOOD, N. J.  
ARCHITECT: WM. F. SCHWANEWEDE  
WEATHERBEST THATCHED STRAW EFFECT ROOF. COLOR: WEATHERBEST WEATHERED STRAW



RESIDENCE ON SACAGORE DRIVE, ROCHESTER, N. Y.

DESIGNED AND CONSTRUCTED BY GEO. A. BUTLER  
WEATHERFEST TATCHED STRAW EFFECT ROOF. COLOR: WEATHERFEST WEATHERFEST STRAW

## Specifications for Weatherbest Thatched Roof

**T**HE following specifications are standard for a WEATHERBEST Thatched Effect Roof and should form part of the general specifications when this type of roof is planned. Adherence to these specifications will insure complete satisfaction in the finished roof and avoid the substitution of improperly-bent, inferior, flat-grain shingles.

### Standard Specifications

#### *Rafter Construction*

All rafter construction at ridges, rakes, hips, valleys and eaves is to be in accordance with instructions and detail drawings appearing in the book, "Construction of WEATHERBEST Thatch Roofs", furnished on request by the WEATHERBEST Stained Shingle Company, Inc., of North Tonawanda, N. Y.

#### *Furring of Rafters*

(While desirable to accentuate the convex appearance of the roof, it is not entirely essential and may be omitted.) Rafters to be furred to a height of 5" to 6" midway between eaves and ridges, diminishing to nothing at eaves and ridges where end of furring merges with the curves.

#### *Shingle Lath*

Rafters at eaves and ridges, and blocking at valleys, hips and rakes to be covered with 1" x 2" shingle lath, spaced 1" apart, running parallel with rafters at rakes, hips and valleys and at right angles to rafters at eaves and ridges.

#### *Roof Shingles*

All roof surfaces shall be covered with WEATHERBEST Thatch Stained Shingles as manufactured and supplied by the WEATHERBEST Stained Shingle Co., Inc., of North Tonawanda, N. Y., and Minnesota Transfer, Minn.

At eaves, lay one double course of square butt WEATHERBEST Stained Shingles bent against the grain. Cover curve at eaves with WEATHERBEST Thatch Stained Shingles bent against the grain. Flat WEATHERBEST Thatch Stained Shingles are to be used on all flat surfaces of roof, and those bent with the grain to a radius conforming with curve for hips and valleys. Cover roll at rakes with WEATHERBEST Thatch Stained Shingles bent with the grain to a 10" radius. Cover curve of roof on each side of ridge board with WEATHERBEST Thatch Stained Shingles bent against the grain, capping the ridge with those bent with the grain to a 20" radius.

#### *Exposure of Shingles*

Lay all shingles in irregular, wavy courses, following procedure given in book, "Construction of WEATHERBEST Thatch Roofs". Exposure to be from 1" to 3" (average 2") on curve at eaves and 1" to 5" (average 3") on all other sections of roof.

#### *Nailing*

Nail all shingles bent against the grain at eaves with 6d. zinc-coated nails, nailing about 3" to 4" from the butt. Shingles on all other parts of the roof to be nailed with 3½d. zinc-coated nails in regular manner.

#### *Color of Shingles*

Color of shingles to be WEATHERBEST Weathered Straw. (If other color scheme is desired, change to color number shown in our samples, or "to match. . . . .")



## Construction of Weatherbest Thatched Roofs

**I**N THE construction of a WEATHERBEST Thatched Effect Roof, the hip type of design should dominate as the general architectural scheme is the elimination of all sharp angles and edges, making the roof appear as one continuous, unbroken covering. To this end, ridges, rakes, hips, valleys and eaves are rounded. This necessitates certain changes from the ordinary rafter construction.

### *Rafter Construction at Eaves*

In order to provide for the overhang curve at eaves, the rafters should project  $1\frac{1}{2}'$  to  $2'$  out from the plate. Round rafter ends to a  $20''$  radius, starting the curve practically parallel with sidewalls and rounding to meet the pitch of the roof. See page 15, Drawing No. 1 at A.

### *Rafter Construction at Ridges*

At Detail B, Drawing No. 1, is shown the method of rounding the ridge. The rafters should be raised about  $3''$  above the top of ridge board, depending on the pitch of roof, and the ends rounded flush with ridge board to a  $20''$  radius. Each end of the curve should merge with the pitch of the roof.

### *Construction at Rakes*

It is important to secure just the correct roll at the rakes, as it is here that one of the most pleasing features of a thatch roof occurs.

Between the end rafter and verge board place a row of shingle headers (blocking), thereby setting the verge board about  $1\frac{1}{2}'$  out from rafter. (See Drawing No. 2., page 15) Also note on Drawing No. 2 the manner in which the shingle headers extend the greatest distance beyond the verge board at the ridge, gradually receding and becoming flush with the verge board at the eaves.

On Drawing No. 3 page 15, is shown verge board dropped below the main rafter line. It will be noted that the shingle headers are set deep over the verge board at the ridge and gradually rise to its top at the eaves, also that shingle headers are largest at ridge and become smaller towards lower end of verge board.

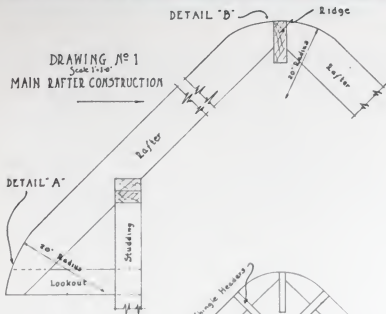
As it is desirable to have the roll greatest at the apex of gable, gradually receding and becoming less pronounced as it nears the eaves, special care should be exercised in shaping the shingle headers. As shown by Drawing No. 4, page 15, beginning at the ridge round the outer end of shingle headers to approxi-



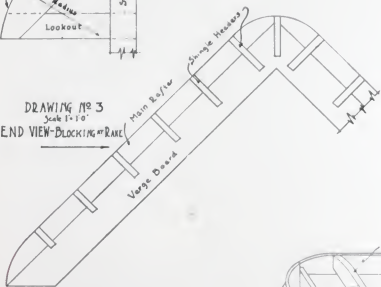


# WEATHERBEST THATCHED STRAW EFFECT ROOFS

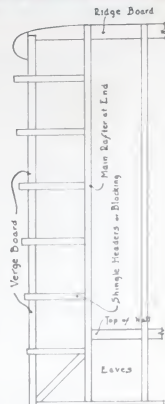
DRAWING NO 1  
Scale 1"-10"  
MAIN RAFTER CONSTRUCTION



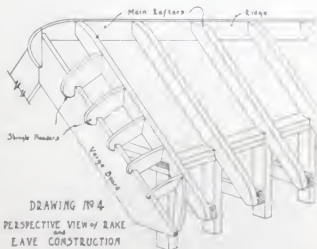
DRAWING NO 3  
Scale 1"-10"  
END VIEW-BLOCKING AT RAKE



DRAWING NO 5  
PERSPECTIVE VIEW OF CONSTRUCTION OF BUILT ROOF



DRAWING NO 2  
Scale 1"-10"  
BLOCKING AT RAKE



DRAWING NO 4  
PERSPECTIVE VIEW OF RAKE  
and  
EAVE CONSTRUCTION

mately 20" radius, having the curve extend beyond verge board and return against it. Note also that blocking is used on the end of ridge board and curved to conform with the shingle headers. Approaching the eaves, the curve on the shingle headers is less pronounced and should gradually recede toward and meet verge board at the eaves. Note on Drawing No. 4, page 15, that a general flattening out of the curve occurs at the corner of the eave.

### *Construction at Bull Nose*

On Page 15, Drawing No. 5, is shown the rafter formation and blocking for the bull nose. Note that the ends of rafters on the horizontal section at A are blocked and curved to a 20" radius, the curve returning against the verge board. The roll of rakes should be so graduated as to be of the same radius where they join the curve of the bull nose and thus remain unbroken.

### *Rafter Construction at Hips and Valleys*

At hips, space two rafters  $1\frac{1}{4}'$  apart, blocking between as shown on Drawing No. 9, Page 21. The curve of the blocking should be an approximate 20" convex radius, each end of curve to merge with roof lines.

As shown in Drawing No. 10, Page 21, the rafter construction for valleys is the same as for the hips, except that blocking receives a concave curve.

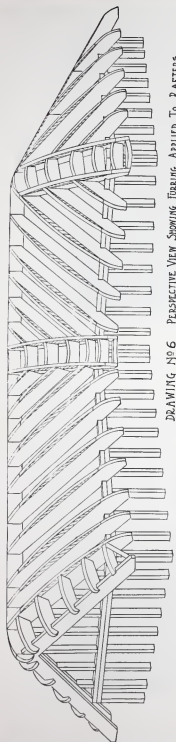
### *Furring of Rafters*

When it is desired to accentuate the curves and general convex appearance of the roof, all rafters should be furred. The furring strips should have their greatest height (5" or 6") midway between ridge and eaves, diminishing to nothing at eaves and ridge where they merge into the curve of the rafter ends. On Page 17, Perspective Drawing No. 6 shows the furring applied to rafters. Hip and valley rafters are also furred. Observe manner in which furring on short rafters joins that on hip and valley rafters.

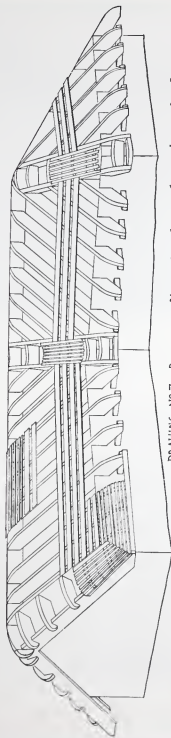
### *Shingle Lath and Roof Boards*

Refer to Drawing No. 7 on Page 17 and note method of sheathing the rounded surfaces. It is necessary to use 1" x 2" shingle lath or strips for covering all rounded sections of the roof. The lath should be spaced 1" apart. At the valleys, hips and rakes, the shingle lath is placed parallel with rafters. At eaves and ridge, shingle lath should be at right angles to rafters. Ordinary roof boards may be used on all flat surfaces of the roof, being sure to space so as to allow for proper ventilation and thus prolong the life of the roof.

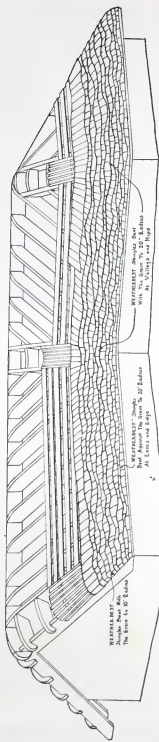




DRAWING NO 6 PERSPECTIVE VIEW SHOWING FURRING APPLIED TO RAFTERS



DRAWING NO 7 - PERSPECTIVE VIEW OF ROOF SHOWING SHINGLE LATH AND ROOF BOARDS



DRAWING NO 8 - PERSPECTIVE VIEW OF ROOF PARTLY COVERED WITH WEATHERBEST THATCH STAINED SHINGLES



RESIDENCE OF ROSS A. McCALLUM, LIMA, OHIO  
 DESIGNED AND BUILT BY THE AUGLEN CO.  
 WEATHERBEST THATCHED STRAW EFFECT ROOF. COLOR: WEATHERBEST WEATHERED STRAW



RESIDENCE OF ARTHUR SHANAFELT, CANTON, OHIO  
 ARCHITECT AND BUILDER: L. A. RYAN  
 WEATHERBEST THATCHED STRAW EFFECT ROOF. COLOR: MEDIUM BROWN



RESIDENCE OF JOHN G. KUEHNLE, DUBUQUE, IOWA  
 DESIGNED AND BUILT BY THE OWNER  
 WEATHERBEST THATCHED STRAW EFFECT ROOF. COLOR: AS LIGHT STRAW



RESIDENCE OF H. W. ERLANSON, SUPERIOR, WIS.  
 DESIGNED BY CURTIS SERVICE BUREAU  
 WEATHERBEST THATCHED STRAW EFFECT ROOF. COLOR: WEATHERBEST WEATHERED BROWN

## Laying Weatherbest Thatch Stained Shingles

**L**AY WEATHERBEST Thatch Stained Shingles in continuous courses whereby each course of shingles follows the curve at the hips and valleys, continuing on to gable ends, or in the case of the all-hip type of construction, making a complete circuit of the roof. Perspective Drawing No. 8 on Page 17 shows how each course of WEATHERBEST Thatch Stained Shingles is continued over hips, across valleys and around roll at rakes.

The butts of WEATHERBEST Thatch Stained Shingles are sawn to a special pattern which makes it easy to lay them so that irregular, wavy courses will result. The procedure to follow is simple. Lay the shingles as they come from the bunch, placing the short side of each shingle even with the long side of the preceding one until the minimum exposure is reached. Then reverse the procedure, laying the long side of each shingle to the short side of the preceding one until the maximum exposure has been reached. The photographic reproduction on Page 21 shows a section of a WEATHERBEST Thatched Effect Roof and illustrates this method of securing the irregular lines.

Throughout, it should be borne in mind that extreme irregularity in the courses is the keynote to an artistic Thatched Effect Roof. Do not try to have the wide exposure section of one course always come directly over the narrow section of the course below, rather let the curves continue at random.

### *Laying Shingles at Eaves*

Beginning at eaves, lay a double course of WEATHERBEST Square Butt Stained Shingles bent against the grain. (A sufficient amount of WEATHERBEST Square Butt Shingles are included for each job.) Cover curve at eaves with WEATHERBEST Thatch Stained Shingles bent against the grain. The exposure on the curve at eaves should vary from 1" to 3", or an average of 2".

### *Flat Surfaces of Roof*

Use flat WEATHERBEST Thatch Stained Shingles for all flat surfaces of the roof, laying the shingles to a varying exposure of 1" to 5", or an average of 3".

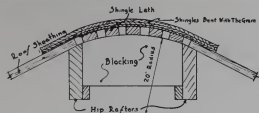
### *Covering Hips and Valleys*

Use WEATHERBEST Thatch Stained Shingles bent with the grain to a 20" radius for the continuance of courses at hips and valleys. (See Perspective

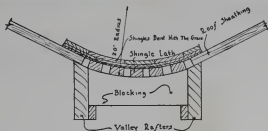
*(continued on page twenty-four)*



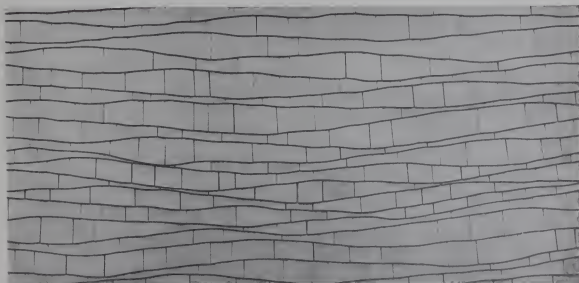
# WEATHERBEST THATCHED STRAW EFFECT ROOFS



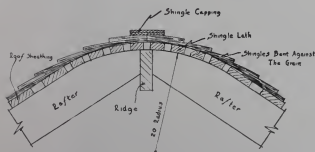
DRAWING № 9—HIP CONSTRUCTION  
Scale 1"=1'-0"



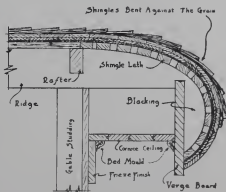
DRAWING № 10—VALLEY CONSTRUCTION  
Scale 1"=1'-0"



SECTION OF WEATHERBEST THATCHED EFFECT ROOF  
(Note the Extreme Irregularity of Exposure)



DRAWING № 11—METHOD OF CAPPING RIDGE  
Scale 1"=1'-0"



DRAWING № 12—SECTION THRU GABLE APEX  
Scale 1"=1'-0"



RESIDENCE AT PASSAIC, N. J., BUILT AND OWNED BY THE L. GEORGE HOROWITZ CO.  
ARCHITECT: B. HAUSTED SHEPARD  
WEATHERBEST THATCHED STRAW EFFECT ROOF IN WEATHERBEST WEATHERED STRAW  
SIDEWALLS: WEATHERBEST STAINED SHINGLES IN SILVER GRAY





RESIDENCE OF JOHN A. IGNASIAK, ERIE, PA  
ARCHITECT: C. PAXTON CODY  
WEATHERBEST THATCHED STRAW EFFECT ROOF. COLOR: SPECIAL GRILES TO BROWN BLEND

Drawing No. 8 on Page 17.) These shingles will be found to be somewhat pliable so that they will readily conform to any slight differences in the radius of the curve.

### *Covering the Roll at Rakes*

Use WEATHERBEST Thatch Stained Shingles bent with the grain to a 10" radius for continuing the courses around the roll at the rakes. (See Perspective Drawing No. 8 on Page 17.) These shingles are also pliable so they will conform to the gradual changing of the curve as it nears the ridge or bull nose. Across the roll or eave, at the bull nose, use WEATHERBEST Thatch Stained Shingles bent against the grain.

### *Capping Ridge*

Drawing No. 11 on Page 21 shows method of capping the ridge with WEATHERBEST Thatch Stained Shingles. It will be noted that shingles bent against the grain to a 20" radius are used for the curves at each side of ridge board.

The ridge is capped with a course of WEATHERBEST Thatch Stained Shingles bent with the grain to a 20" radius. This course is continued around the curve of the blocking at the end of ridge board at which point WEATHERBEST Thatch Stained Shingles bent against the grain are used. (See Drawing No. 12 on Page 21 which shows section through apex of gable.

If so desired, metal may be used in place of WEATHERBEST Thatch Stained Shingles for capping ridge. But when metal is used, it should be painted in colors to match the shingles.

### *Nailing Weatherbest Thatch Stained Shingles*

Use 6d. zinc-coated nails for the shingles bent against the grain at the eaves, nailing about 3" to 4" from the butt.

On all other sections of the roof use 3½d. zinc-coated nails, nailing in the regular manner.

The importance of using good zinc-coated nails cannot be too strongly stressed. It is folly to apply a roofing material capable of lasting as long as the building with a cheap iron nail that will rust out in a few years, leaving the shingle without proper fastening. Zinc-coated nails will hold WEATHERBEST Thatch Stained Shingles firmly in place during their many years of service.





Weatherbest  
STAINED-SHINGLES  
FOR ROOFS AND SIDEWALLS